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ABSTRACT

The National Assessment of Educational Progress is encouraging the interpretation of its data to make them more useful for local educators, and is facilitating the adaptation of NAEP procedures to State and local assessment programs. The Department of Utilization/Applications was formed in October 1971 to facilitate the use of technology developed and data produced by the commission. The implications of the NAEP model and data for local education are discussed. (Author)

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Some Implications of the National Assessment Model and Data for State and Local Education

by

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Many financial and human resources have been invested in the National Assessment of Educational Progress (NAEP) since the mid-60's. These resources have already given educators and the lay public some products. A sophisticated objectives-referenced assessment model which yields data about the educational attainments of national population groups was developed; concensus objectives in ten diverse subject areas have been produced and published; a full complement of objectives-referenced exercises have been developed for the ten subject areas; by summer, data will have been collected from a national sample for eight subject areas; and reports will soon be available for seven subject areas. Under the sponsorship of the Education Commission of the States (ECS) and with continuous funding by the United States Office of Education, National Assessment has overcome early criticism and solved the basic operational and technical problems involved in producing large amounts of objectives-referenced data.

In terms of its original goals, National Assessment is well on its way to success. It has proven that it can provide comprehensive data about the educational attainments of young Americans, and it is presently collecting the first data which will be analyzed to measure the growth or decline of those educational attainments over time. Given only these goals, project staff could certainly continue to provide the data while refining and improving all aspects

of exercise development, data collection, analysis and reporting. This type of future would correctly reflect most literature and thought about National Assessment prior to 1972. The model's reporting component was designed to present comparative percentages of success for national population groups and to disseminate reports widely. The final component, utilization of National Assessment to improve American education, was left to others.

The logic for this was sound. The National Assessment staff is a technical, operational staff whose job is to provide data of high quality, not a group of educational policy makers whose job is to interpret educational data and implement educational change. Proponents of the project believed educators and lay people, once they knew the assessment data was available, would read it, interpret it, discuss it and use it to implement educational change. Also, those who believed strongly in the need for a national data base on the level of educational attainments and the change in that level over time were patient people. The long run return of a more intelligent allocation of educational dollars would be, in and of itself, worth the investment of human and financial resources in the project.

Some were not so patient, or they desired a more immediate return on the dollars spent each year. Others saw potential, short run uses of the data and model which were not being tapped by implementing a model which provided no systematic attempt at interpretation or utilization by NAEP, ECS or USOE.

Overall, the data was accepted as high quality data with a potential for use. However, there was little enthusiasm since that potential was vague and futuristic. Two major reactions came from educators and laymen who looked at the reports. One was, "So what? You have given us this great amount of descriptive technical data, but nobody has attempted to tell us what it means for American education." The second was, "Can we get this kind of data at our educational autonomy level? We need objectives-referenced data about population groups which are relevant to our decision making process."

National Assessment's Policy Committee responded to these reactions by recommending to the ECS Steering Committee, the creation of a Department of Utilization and Applications. This recommendation was approved in December, 1971. The major goals of National Assessment did not change, but the project altered the original model by adding an active utilization component to stimulate immediate use of the data and model.

The Department of Utilization and Applications was organized into two distinct areas, each of which responds to one of the above reactions. The major goal of Data Utilization and Applications is to encourage the use of National Assessment materials and data by educators and laymen involved in all levels of educational decision making. This area of the department is attempting to generate dialogue which will answer the question, "So what?" and which will lead to changes in American education based upon that answer. The second area of the department is Model Utilization and Applications,

and its major goal is to facilitate the adaptation of the National Assessment process, technology and materials to state and local assessment programs. This area of the department is helping states and local districts borrow from National Assessment experience and products to produce objectives-referenced data which is relevant to decision making.

Those who reacted to National Assessment strongly enough to bring about the creation of the Department of Utilization and Applications will watch the progress of that department carefully. Many people will judge National Assessment by its direct, short run utility at state and local educational autonomy levels in addition to, or even instead of, its long run production of a comprehensive national data bank. It is certainly too early to make a final judgment about the project's utility at these levels. National Assessment is still in the first cycle of a pioneering effort; therefore, all procedures and products will be refined based upon initial experiences. The Department of Utilization and Applications is just over a year old; therefore, departmental goals and plans are still being defined, and only a few programs have been iniated. However, it is not too early to look at existing plans and programs to gain some insight into the possible implications of the National Assessment model and data upon state and local education.

Data Utilizations and Applications has not taken on the role of interpreting NAEP data or suggesting implications for education. It has instead taken on the role of systematically generating, or catalyzing, in-depth interpretations of the data and statements

concerning the educational implications of the data. Two major interpretative efforts have been funded to date. The National Science Teachers Association (NSTA) presently has a team doing a comprehensive in-depth study of National Assessment's science reports to answer the question, "NAEP findings in science: What do they mean?" The team, which includes scientists and science educators, will thoroughly examine the science data, interpret it, discuss its educational implications for education and teaching and prepare appropriate reports. The NSTA will publish and disseminate the reports and utilize the findings of the study in national and regional conventions. The results are due this spring. The National Council for the Social Studies (NCSS) has just begun a study which will be completed this fall. Study teams will thoroughly examine all National Assessment procedures and measures. Conclusions about procedures and measures will then be taken into account by study teams interpreting the project's citizenship and social studies data. Also, another study team will investigate the potential utility of parts of the NAEP model in local schools to improve curriculum and instruction. The NCSS will publish reports about all phases of the study, including the educational implications of the data and model. These findings will also be used in national and regional conventions.

Data Utilization and Applications presently plans to generate an in-depth interpretative effort in each subject area. Some will involve contracts with educational organizations such as the NSTA and NCSS, but others will involve special task forces composed of scholars, educators and laymen who will bring more diverse viewpoints to the

task of interpreting National Assessment data and discussing its educational implications. These efforts, along with National Assessment staff's redesign of basic reports to make them more interpretable, will present educators and the lay public with reports from which conclusions about educational implications can be more readily drawn. These reports will present some very evident educational implications of the data and will stimulate further dialogue around more controversial ones. When educational decision makers use these findings based upon NAEP data to support points of view about recommended curriculum and instructional changes, National Assessment will have an impact upon American education at whatever autonomy level this occurs.

In October, 1972, Data Utilization and Applications also discussed every aspect of the project in a two-day session with members of the Council of Great City Schools. As a result of this meeting the Council's Board of Directors passed a resolution communicating its deep concern about National Assessment's methods of reporting and disseminating data relating to urban areas. The resolution recommended that National Assessment and the Council of Great City Schools cooperate in the dissemination of the results and attempt to establish more representative sampling of urban areas. Cooperation and investigation have begun in a preliminary manner. The Council further recommended that it examine National Assessment materials and methodologies in detail to determine their possible use within urban school systems. This type of cooperation, examination and action will make National Assessment data more relevant to urban

needs and increase its potential for use in decision making within local, urban school districts.

For a new program Model Utilization and Applications has generated an impressive amount of interest and a large number of intermediate products. At least 14 states and 5 local districts have actually adapted some of the NAEP materials, procedures, or technologies in conducting their own assessments. The high level of early interest and experimentation has occurred because NAEP's Model Utilization and Applications is one source that might be used to solve some difficult educational problems. The political and lay publics have been applying more and more pressure on educators to justify educational expenditures in terms of educational outcomes. When this pressure comes from the lay community or from a state legislature, it is usually called accountability; and when it comes from the United States Congress, it is usually called Title"x" evaluation.

Many of the educators who accept this pressure as fair or who know it will soon necessitate justification of expenditures in terms of educational outcomes do not believe traditional testing instruments can provide a fair judgment. Furthermore, many educators were seeking a supplement to standardized tests long before accountability pressures began. The National Assessment model fills a void left by standardized tests which measure individual student differences and establish reliable average scores for grades or schools based upon the performance of average students on cognitive test items. National Assessment provides direct information about the performances of various population groups in terms of desirable knowledges, skills,

understandings and attitudes. This type of information can provide educators with data about valuable educational achievements within their agencies and with data about weaknesses which demand a greater allocation of resources.

If one views the data about the educational attainments of young Americans as the product of National Assessment, then the great advancement in the technologies and methodologies of objectives-referenced assessment and the actual objectives and exercises published by NAEP must be viewed as two very valuable by-products. National Assessment has developed procedures for producing concensus objectives and selecting pools of exercises by achieving agreement among scholars, educators and laymen; it has developed criteria for producing and scoring objectives-referenced exercises to measure very diverse objectives; it has developed procedures for administering objectives-referenced exercises to minimize interference from extraneous factors and maximize valid results; and it has developed a sampling and analysis plan to yield direct, comparative educational data about population groups.

Therefore, National Assessment was certainly one logical place for states and local districts to contact about producing data that could be related to group performance on specific objectives. While National Assessment and the Education Commission of the States firmly resisted any pressures to gather and report data pertaining to performance within particular state or local education agencies, they did establish, through Model Utilization and Applications, a program to make NAEP materials, procedures and technologies available to

interested state and local education agencies. Because of the state thrust of ECS and a limited amount of resources, consultation and technical assistance are provided most frequently to states; however, they are available to local districts which are an integral part of a state assessment program or which are involved in a unique demonstration of the adaptability of the NAEP model at the local level.

National Assessment consultation and technical assistance takes place in annual workshops or with staff from individual education agencies. The National Assessment model and existing state and local adaptations are described and the many problems of designing and implementing an assessment are discussed. If an educational agency decides to use National Assessment materials or adapt some of the procedures or technologies, technical assistance is provided by appropriate members of the NAEP staff.

State and local adaptations have varied considerably depending upon the goals of the agency. For instance, Connecticut and Maine conducted assessments relying exclusively upon National Assessment exercises and using sampling, administration, scoring and analysis procedures that compared state results with NAEP's national and regional results. But Connecticut related NAEP exercises and objectives to existing state objectives while Maine did not. And Maine related student performance to many non-school factors not investigated by NAEP or Connecticut. Massachusetts attempted to avoid state comparisons with national data. National Assessment objectives were prioritized by a sample of teachers, and exercises (including some not developed by NAEP) measuring the priority objectives were administered

to a sample of grade-level students using traditional administrative methods. The data was looked at in terms of the level of student performance as related to the expectations of Massachusetts educators.

At the local level both Lincoln, Nebraska and Montgomery County, Maryland also plan to conduct assessments relying exclusively upon National Assessment exercises and using sampling, administration, scoring and analysis procedures which will allow local results to be compared with national and regional results. However, San Bernardino, California developed a model similar to that of National Assessment and used local teachers to develop objectives and exercises. San Bernardino used the services of Model Utilization and Applications as a source for technological and methodological consultation and borrowed from NAEP objectives and exercises only as they applied to the locally developed model.

Specific program changes based upon these and other early efforts are not available; however, Maine and Connecticut have begun to look more closely at certain aspects of their curriculums based upon results, and Massachusetts has achieved an increased interest in mastery level testing. Interest in various adaptations has continued to increase. Many states and local districts which have conducted one assessment are planning to conduct another, usually in a different subject area and with increased technical sophistication. Some states and local districts are planning a first attempt; some states are designing long run, cyclical state assessments which will require high levels of state funding, e.g. Minnesota and Illinois. Also, in some states which have conducted state assessments, local districts have inquired about

receiving data on local performance levels as compared to state performance levels.

The educational impact of adaptations of NAEP's objectives-referenced model at state and local levels depends upon many things. The early, experimental efforts must reveal some actual, and much potential utility for revealing educational strengths and weaknesses to educators and laymen. Within a reasonable amount of time, some states and localities will have to use these early efforts to design and operationalize sophisticated, well-funded assessments capable of providing data for the successful allocation of resources at the program level. This will require a relatively heavy financial commitment from the state or local agency. One reason National Assessment has been a leader in the advancement of objectives-referenced technologies, methodologies and materials is because objectives-referenced assessment is expensive. The investment made through National Assessment can cause state and local developmental and operational efforts to be a lot easier and much less expensive than they would have been; however, National Assessment cannot provide various states and localities with packaged, inexpensive assessments for allocating resources according to unique needs. Educators who believe objectives-referenced assessment would be beneficial at the state or local level and educators who are pressured to justify expenditures according to educational outcomes must convince those who control their budgets to give them the funds necessary for designing and implementing an assessment which will provide data that can be used for fair program evaluation within their agencies.

The program for Model Utilization and Applications is designed to contribute to the development of more sophisticated assessments. As state and local education agencies secure adequate assessment funding and produce data which meets local needs National Assessment will continue to share its products and give consultation and technical assistance based upon the latest methodologies and technologies. It will also provide a forum for those involved in state and local assessments in order to advance assessment technology, and it will disseminate both the products of local assessments and the latest technological and methodological developments.

National Assessment has not had a major impact on American education to date, but it has had some impact. If significant educational implications can be found in the great mass of data already produced and if state and local education agencies can successfully adapt parts of the NAEP model to their needs, the project can have considerable short run effects on state and local education. The progress of the Department of Utilization and Applications to this point in time does not guarantee this, but its active programs and early accomplishments do make it very possible.

Before the question of whether the National Assessment of Educational Progress is having enough short run impact on state and local education is answered, the question should be put in perspective. It is certainly important, but its importance must not be over-emphasized. Two other questions are more important. If National Assessment is not having enough impact on state and local education, is the successful provision of continuous comprehensive data on the

educational attainments of young Americans worth the money spent on the project? If National Assessment has significant impact on state and local assessment, will it be possible to continue to provide comprehensive data on the educational attainments of young Americans while working under the pressures of increasing that impact each year and dealing with the inherent controversies? Unless policy makers alter National Assessment's basic goals the project should be evaluated primarily according to its success in meeting those goals. Otherwise, a project with great long run value to American education might be discontinued before it has had a chance to make a return on its investment, or it might be altered to maximize its return on secondary goals rather than primary ones.

References

Bayless, D.L., R.E. Folsom, and L.H. Lewis. Sample Design for Assessing Montgomery County Public Schools 13 and 17-Year-Old Pupils Using the NAEP Model. Report of the Research Triangle Institute, Center for Educational Research and Evaluation, Research Triangle Park, N.C., 1972.

Connecticut Assessment of Reading Skills: 1971-72. Report of the Connecticut State Department of Education, Hartford, 1972.

Finley, Carmen J., and Frances S. Berdie. The National Assessment Approach to Exercise Development. Monograph of the National Assessment of Educational Progress, Denver, 1970.

Grieder, Calvin. "Educators Should Welcome Pressure for Accountability," Nation's Schools, (May, 1970), 14.

Hightower, Caroline. How Much are Students Learning? Plans for a National Assessment of Education. Report by the Committee on Assessing the Progress of Education, Ann Arbor, 1968.

Johnson, George H. "Making the Data Work," Compact, VI (February, 1972), 29-30.

Maine Assessment of Educational Progress: Methodology. Report of the Research Triangle Institute, Center for Educational Research and Evaluation, Research Triangle Park, N.C., 1972.

Maine Assessment of Educational Progress: Results. Report of the Research Triangle Institute, Center for Educational Research and Evaluation, Research Triangle Park, N.C., 1972.

Reading and Literature: General Information Yearbook. Preliminary Report 02-GIY of the National Assessment of Educational Progress, Denver, 1972.

Southwick, Thomas P. "Education Assessment: Results - a Step toward Accountability," Science, CLXIX (July, 1970), 358-59.

Tyler, Ralph W. What Is an Ideal Assessment Program? Paper presented at the meeting of Special Consultants on the State Testing Program, July 19-21, 1968 and reprinted by the Bureau of Reference Services, State Department of Education, Sacramento, 1968.

Womer, Frank B. What is National Assessment? Monograph of the National Assessment of Educational Progress, Denver, 1970.